

**Rio Mesa Solar Electric Generating Facility (RMSEGF)
(11-AFC-4)**

Applicant's Specific Comments on the Preliminary Staff Assessment

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SPECIFIC COMMENTS

1. **Page 4.15-1, SUMMARY OF CONCLUSIONS, First and Fourth Paragraphs:** The reference to Riverside Board Policy B-29 is inappropriate¹. B-29 refers to recovery of County property taxes from which solar projects are exempt, either in part or in whole. B-29 seeks to accomplish this through implementation of a fee Policy described to "...ensure the County is compensated in an amount it deems appropriate for the use of its real property, and to give solar power plant owners certainty as to the County's requirements." B-29 makes no claim that any of the funds will be designated to fire facilities or services as the entirety of the B-29 fee goes into the County's General Fund. County Ordinance No. 659 is specifically in place to compensate the Fire Department for impacts to its services. See Riverside County Ordinance No. 659, Page 11. So whether or not Board Policy B-29 is overturned, the County already has a defined Ordinance in place to specifically cover fire facility and service impacts. Please revise the text of the PSA as follows:

Energy Commission staff (staff) has reviewed the Rio Mesa Solar Energy Generating Facility (Rio Mesa SEGF) in accordance with the requirements of the California Environmental Quality Act (CEQA). With respect to CEQA, staff concludes that if the applicant for the proposed Rio Mesa SEGF project provides a Project Construction Safety and Health Program and a Project Operations and Maintenance Safety and Health Program, as required by Conditions of Certification **WORKER SAFETY-1** and **-2** and fulfills the requirements of Conditions of Certification **WORKER SAFETY-3** through ~~-8~~**10** the project would incorporate sufficient measures to ensure adequate levels of industrial safety and comply with applicable laws, ordinances, regulations, and standards (LORS).

In response to data requests, the applicant provided a Fire and Emergency Services Risk and Needs Analyses (FESNA). The analyses suggest that by complying with LORS, the project would not create significant impacts on the local RCFD or local emergency response resources because of the projected infrequency and small scale of any responses needed for fire, medical, or technical rescue needs. ~~In the event that Riverside County Solar Policy B-29 is overturned, staff proposes Conditions of Certification **Worker Safety-9**, and **-10**, to provide an alternative mechanism for determining and implementing mitigation for impacts to the fire department.~~

2. **Page 4.15 2, LORS Table 1:** The Local LORS description should be revised as follows to add Riverside County Development Fee Program Ordinance No. 659 and delete reference to Board Policy No. B-29:

Local	
Riverside County Fire Code,	Adopts the California Fire Code, 2010 Edition, with

¹ Riverside County representative Tiffany North confirmed BSE's position at the October 29, 2012 CEC PSA Workshop.

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Riverside County Code Chapter 8.32: Ordinance No. 787	some of its appendices, into Riverside County regulations.
Riverside County Subdivision Regulations, Ordinance No. 460	Establishes requirements for layout including fire protection and access requirements for developed land parcels.
<u>Riverside County Development Fee Program Ordinance No. 659</u>	<u>Establishes specific impact fees for Developers based on class (residential, industrial, etc.) and location for various County services including but not limited to: Public and Fire Facilities, Roads, Bridges, Traffic Signals, Conservation and Land Bank, Parks, Trails, Flood Control Libraries, and Administrative fees.</u>
<u>Riverside County Board of Supervisors Policy No. B-29</u>	<u>Establishes requirements for utility scale solar power plants to make annual payments to the County based on acreage used in the power production process.</u>

3. **Page 4.15-4, PROPOSED PROJECT, SETTING AND EXISTING CONDITIONS, Fourth Paragraph:**
Please revise as follows:

Management, engineering, administrative staff, skilled workers, and operators would serve both plants. Rio Mesa SEGF is expected to employ up to 100 full-time employees with up to 80 at the site over a 24 hour period: 2030 with Rio Mesa I (the southern plant), 2030 with Rio Mesa II (the northern plant), as well as 40 for the common area. The facility would be operated 7 days a week, typically up to 16 hours per day. The additional employees from 80 to 100 account for relief shift personnel for the two plants together in order to achieve 24/7/365 coverage.

4. **Page 4.15-10, Additional Safety Issues, Second through Fourth Full Paragraphs:** Applicant currently implements a Construction Personal Protective Equipment Program at ISEGS that requires workers in the solar field receiver area receive and wear appropriate protective sunglasses. This same provision will be implemented as part of the ISEGS Operations Protective Equipment Program. Applicant intends to implement these same requirements at the RMSEGF project during construction and operation. Therefore, Applicant recommends that the specific reference to IEC-62471 be deleted, and that the discussion regarding proposed Conditions of Certification Worker Safety-1 and -2 be modified as follows:

~~The potential photochemical retinal hazards are calculated according to IEC 62471 standard (same as CIE S 009: 2002), titled: "Photobiological Safety of Lamps and Lamp Systems", where the spectral values were taken from "ASTM G173-03 Reference Spectra Derived from SMARTS v. 2.9.2 (AM1.5)" and are the same as the "ISO 9845-1-1992."~~

~~Therefore, staff recommends that the applicant include in their~~ The personal protective equipment (PPE) plans that will be elements of the Project Construction Safety and Health Program required by proposed Condition of Certification **Worker Safety-1** and the Project Operations and Maintenance Safety and Health Program required by proposed Condition of Certification **Worker Safety-2, An Eyesight Protection from Retinal Damage Plan** that is designed to insure that workers in the solar field receive and

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~~wear the appropriate protective sunglasses. This Eyesight Protection from Retinal Damage Plan would:~~ will ensure that workers in the solar field receive and wear appropriate protective sunglasses. The Personal Protective Equipment Program will establish the requirements and procedures for the use of protective eye protection equipment and will provide training and, monitoring of worker use of the PPE and compliance with worker safety procedures to avoid photochemical retinal damage.

~~(1) identify and acquire the appropriate eye protection (EP) equipment based on the IEC 62471 standards in sufficient numbers to provide safety glasses for the workers engaged in solar field work, and tower work where the potential exists for heliostat solar reflective exposure or SRSR exposure during operations;~~

~~(2) establish the requirements and procedures for the donning and doffing of the EP by workers and provide training and;~~

~~(3) monitor worker use of the PPE and compliance with the EP procedures.~~

~~Refer to the **Traffic and Transportation** section or **Appendix TT1- Glint and Glare Safety Impact Assessment** of this PSA for a more complete and detailed discussion of this topic.~~

5. **Page 4.15-16, Last Paragraph:** Staff has proposed that Condition of Certification Worker Safety-7 is necessary to supplement the dust control measures already required by proposed Conditions of Certification AQ-SC3 and AQ-SCR. Applicant does not believe that a specific new condition within the Worker Safety section of the PSA is required. The use of dust masks will be addressed in the Personal Protective Equipment Programs as identified in the Construction Safety and Health Program and the Operations and Maintenance Health and Safety Program required in proposed Conditions of Certification Worker Safety-1 and Worker Safety-2. The Personal Protective Equipment Programs will ensure that workers receive and wear appropriate dust masks. The Personal Protective Equipment Program will establish the requirements and procedures for the use of dust masks and will provide training and, monitoring of worker use of the PPE and compliance with worker safety procedures. Applicant requests that the PSA text be revised as follows:

Given the available scientific and medical literature on VF, it is difficult for staff to assess the potential for VF to impact workers during construction and operation of the proposed Rio Mesa SEGF with a reasonable degree of certainty. To minimize potential exposure of workers and also the public to Coccidioidomycosis during soil excavation and grading, extensive wetting of the soil prior to and during construction activities should be employed and dust masks should be worn at certain times during these activities. The dust (PM10) control measures found in the **Air Quality** section of this PSA should be strictly adhered to in order to adequately reduce the risk of contracting VF to a less than significant level. The use of dust masks will be addressed in the Personal Protective Equipment Programs as identified in the Construction Safety and Health Program and the Operations and Maintenance Health and Safety Program. The Personal Protective Equipment Programs will ensure that workers receive and wear appropriate dust masks during earthmoving activities. The Personal Protective Equipment Program will establish the requirements and procedures for the use of dust masks and will provide training and, monitoring of worker use of the PPE and compliance with worker

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safety procedures. Towards that end, staff proposes Condition of Certification ~~WORKER SAFETY 7~~ which would require that the dust control measures found in proposed Conditions of Certification ~~AQ-SC3~~ and ~~AQ-SC4~~ be supplemented with additional requirements including implementing methods equivalent to the requirements of Rule 402 of the Kern County Air Pollution Control District (as amended Nov. 3, 2004).

6. **Page 4.15-22, RCFD Impacts, Third paragraph, 1st-3rd sentence:** Refer to Specific Comment #1 regarding Riverside Board Policy B-29 and County Ordinance No. 659. Please revise as follows:

A letter from Captain Jason Neuman of RCFD (RCFD 2012a), states that although increased demands on the RCFD would be expected to result from the construction and operation of the project, the project's participation in Riverside County's Development Impact Fee Program included in Ordinance No. 659. and the Solar Policy B-29 as adopted by the Riverside County Board of Supervisors would mitigate the impacts. ~~More detailed information pertaining to Policy B-29 can be found in the Land Use section of this PSA. In the event that Riverside County Solar Policy B-29 is overturned, staff proposes Conditions of Certification Worker Safety 9, and 10, to provide an alternative mechanism for determining and implementing mitigation for impacts to the fire department.~~

7. **Page 4.15-23, RCFD Impacts, First and Fourth Paragraph:** Applicant requests that wording be added to clarify that the solar thermal facilities discussed in these paragraphs utilize the parabolic trough technology. This will allow the reader to better understand the ultimate conclusions regarding the relative risks of the Rio Mesa SEGF as discussed on Page 4.15-25.

Staff has considered the position of the RCFD and all relevant information as well as past experience at existing solar power plants that are similar to, but smaller than, the proposed project. Staff reviewed the records of emergency responses of the San Bernardino County Fire Department (SBCFD), the primary emergency responding agency to the only three operating thermal solar power plants in the state. All three of these solar thermal power plants utilize the parabolic trough technology. These are the Solar Electric Generating Station (SEGS) 1 & 2 in Daggett (operating since 1984), SEGS 3-7 at Kramer Junction (1989), and SEGS 8 & 9 at Harper Dry Lake (1989). Staff also reviewed what records were immediately available at the three solar plants. All sources stated that their records were incomplete and not comprehensive. Staff wishes to caution that since the number of thermal solar power plants is so few and their operating history so short, any conclusion as to accident incident rates is meaningless from a statistical perspective. Simply put, the data set is not robust enough to draw any conclusions about their safety records. Nevertheless, this information is provided for illustrative purposes.

...

Regarding emergency response including fire, rescue, medical and hazardous materials incidents, approximately 30 incidents occurred since 1998 that required the SBCFD (and other fire stations through mutual aid agreements) to respond to the three solar power plant sites. These include fires, fire alarm activations, injuries, medical emergencies, hazardous materials spills, complaints/calls from the public, and false alarms. However, the available records did not include documentation of a major fire at the SEGS 8 facility in January of 1990 that required a large part of the regional resources from four

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different fire districts including the San Bernardino County, Edwards Air Force Base, California Department of Forestry and Fire Protection (CDF), and the Kern County Fire Departments. This fire is the largest incident that has occurred at a solar thermal plant in California and demonstrates the magnitude of fire department resources that can be required to respond to a fire at a large thermal solar facility that utilizes the parabolic trough technology.

8. **Page 4.15-25, First Paragraph:** Please revise as follows:

Staff has considered the position of the RCFD and all relevant information as well as past experience at existing solar power plants all of which have higher risk than the proposed Rio Mesa SEGF. The proposed facility would be located in an area that is currently served by the RCFD and is within the Category IV Outlying response criteria.

9. **Page 4.15-25, Proposed Mitigation, Heading and First Paragraph:** The PSA states “The fire, hazmat, and EMS needs at the proposed plant are real and would pose significant added demands on local fire protection and emergency medical services.” The PSA goes on to provide “Proposed Mitigation” to address these added demands. While the impacts on RCFD may be real, it is not clear why they are deemed substantial or significant and would therefore require mitigation. The added demands of the Project on public services, if any, are not “environmental impacts” subject to CEQA. For example, in *City of Hayward v. Board of Trustees of the California State University*, a California appeals court rejected the City of Hayward’s claim that the risk of injury from “dangerously long” response times is an environmental impact subject to CEQA. (*City of Hayward v Board of Trustees of the California State University*, A131412, A13424 (First District Court of Appeal, May 30, 2012)). Similarly, the impacts of the Rio Mesa SEGF on emergency and medical services is an economic effect, not an environmental impact that must be mitigated. The PSA’s use of the heading “Proposed Mitigation” is therefore confusing and inconsistent with the requirements of CEQA. While the Project has no legal duty to mitigate the added demands, if any, on emergency and medical services, the Applicant will comply with Riverside County Ordinance 659, which requires a development fee to address added demands on County facilities. For these reasons, Applicant requests that staff remove the following language from the PSA:

~~Proposed Mitigation~~

~~Certain tax exemptions for solar power plants reduce the tax revenues going to counties and local agencies that would normally be used to provide the resulting expansion in fire and emergency medical services needed to cover them. Thus, the potential exists with such solar power plants to cause impacts on public safety as a result of usage and drawdown of local agency resources that provide needed services, such as fire and EMS response to protect the public during emergencies, especially in rural districts where resources are limited.~~

10. **Page 4.15-27, CONCLUSIONS, First Paragraph and Third Paragraphs:** Refer to Specific Comment #1 regarding Riverside Board Policy B-29 and County Ordinance No. 659 and revise the Conclusions section as follows:

Energy Commission staff (staff) has reviewed the Rio Mesa SEGF in accordance with the requirements of the California Environmental Quality Act (CEQA). With respect to CEQA,

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staff concludes that if the applicant for the proposed Rio Mesa SEGF project provides a Project Construction Safety and Health Program and a Project Operations and Maintenance Safety and Health Program, as required by Conditions of Certification **WORKER SAFETY-1** and **-2** and fulfills the requirements of Conditions of Certification **WORKER SAFETY-3** through ~~8-10~~ the project would incorporate sufficient measures to ensure adequate levels of industrial safety and comply with applicable laws, ordinances, regulations, and standards.

...

Staff has considered the position of the Riverside County Fire Department (RCFD) and all relevant information as well as past experience at other solar power plants in California. ~~The RCFD has indicated impacts upon emergency services resulting from increased demands resulting from construction and operation of the proposed project would be mitigated by the project's participation in Riverside County's Development Impact Fee Program included in Ordinance No. 659. applicant's participation in the Riverside County Board of Supervisors Policy Number B-29 which pertains to solar power plants. Because Solar Policy B-29 is under court challenge, staff has not exclusively relied upon it for mitigation of impacts. Staff has proposed a backup plan in the form of Conditions of Certification **Worker Safety 9** and **-10**. Staff has determined that the likely emergency response requirements of the Rio Mesa SEGF would not create a significant public impact. with the adoption of staff's proposed conditions of certification.~~